

## REMARKS

Reconsideration of this application as amended is respectfully requested.

In the Office Action, claims 1-30 were pending. Claims 1-5, 7-13, 15-20, 22-24 and 26-30 were rejected. Claims 6, 14, 21 and 25 are objected to, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In this response, no claim has been canceled. Claims 1, 6-7, 10, 12, 14-16, 21-23, 25-27, and 29 have been amended. Applicants acknowledge with appreciation the allowance of claims 6, 14, 21 and 25. However, at this time, Applicants elect not to place the limitations of the allowed claims into their corresponding independent claims because Applicants respectfully believe that the revised independent claims are in condition for allowance. No new matter has been added.

Specifically, claims 6, 14, 21 and 25 have been amended as independent claims including substantially all limitations of their respective base and intervening claims. Thus, claims 6, 14, 21 and 25 are allowable.

Claims 6-7, 10, 14-15, 21-22, and 25-26 were objected to because of informalities. In view of the foregoing amendments, it is respectfully submitted that the objections have been overcome.

Claims 1-5, 7, 11-13, 15-20, 22-24 and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopinath et al., U.S. Patent No. 6,609,093 ("Gopinath") in view of Gales ("Semi-Tied Covariance Matrices for Hidden Markov Models"). Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopinath et al., in view of Gales and further in view of Kumar ("Investigation of Silicon Auditory Models and Generalization

of Linear Discriminant Analysis for Improved Speech Recognition”). In view of the foregoing amendments, it is respectfully submitted that the currently pending claims as amended include limitations that are not disclosed or suggested by the cited references, individually or in combination.

Specifically, independent claim 1 includes limitations that the FST and MST are optimized jointly via an objective function, where an output of the objective function is determined based on the MST and a diagonal covariance matrix based on a product of the MST, FST, and an approximate full covariance matrix of the MST. Thus, when the MST and FST are optimized, the output of the objective function reaches a maximum value. It is respectfully submitted that the above limitations are absent from the cited references, individually or in combination. Therefore, independent claim 1 is patentable over the cited references.

Similarly, independent claims 12, 16, 23, 27, and 29 include limitations similar to those recited in claim 1. Thus, for the reasons similar to those discussed above, independent claims 12, 16, 23, 27, and 29 are patentable over the cited references.

Given that the rest of the claims depend from one of the above independent claims, at least for the reasons similar to those discussed above, it is respectfully submitted that the rest of the claims are patentable over the cited references.

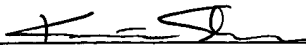
In view of the foregoing, Applicants respectfully submit the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: 3/17/2005

  
\_\_\_\_\_  
Kevin G. Shao  
Attorney for Applicant  
Reg. No. 45,095

12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, California 90025-1026  
(408) 720-8300